



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DFW

Applicant: Prabhu Krishnamoorthy et al.

Title: SYSTEM AND METHODS FOR SEGMENTING AND DISPLAYING TUBULAR VESSELS
IN VOLUMETRIC IMAGING DATA

Docket No.: 543.011US1

Serial No.: 10/723445

Filed: November 26, 2003

Due Date: N/A

Examiner: Unknown

Group Art Unit: 2682

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ Communication Concerning Related Application(s) (1 pg)
- ☒ A return postcard.
- ☒ An Information Disclosure Statement (2 pgs.), Form 1449 (2 pgs.), and copies of 10 cited documents.

Please consider this a **PETITION FOR EXTENSION OF TIME** for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
Customer Number 21186

By: Suneel Arora
Atty: Suneel Arora
Reg. No. 42,267

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30 day of May, 2004.

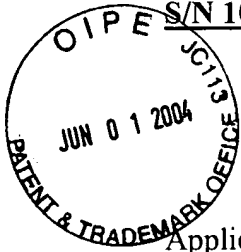
Amelia M. Luster
Name

Amelia M. Luster
Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
(GENERAL)

S/N 10/723445

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Prabhu Krishnamoorthy et al.	Examiner:	Unknown
Serial No.:	10/723445	Group Art Unit:	2682
Filed:	November 26, 2003	Docket:	543.011US1
Title:	SYSTEM AND METHODS FOR SEGMENTING AND DISPLAYING TUBULAR VESSELS IN VOLUMETRIC IMAGING DATA		

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

Serial No : 10/723445

Filing Date: November 26, 2003

Title: SYSTEM AND METHODS FOR SEGMENTING AND DISPLAYING TUBULAR VESSELS IN VOLUMETRIC IMAGING DATA

Page 2

Dkt: 543.011US1

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

The present application is either a U.S. national patent application filed after June 30, 2003 or an international application that entered the national stage under 35 U.S.C. § 371 after June 30, 2003. Thus, Applicant believes that the U.S. Patent & Trademark Office has waived the requirement under 37 C.F.R. 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication. The waiver is provided in a pre-OG notice from the U.S. Patent & Trademark Office entitled "Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003" and dated July 11, 2003. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

Respectfully submitted,

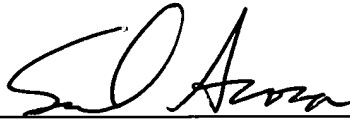
PRABHU KRISHNAMOORTHY ET AL.

By their Representatives,

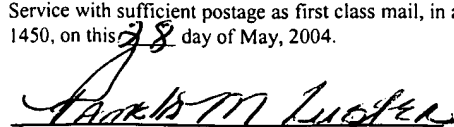
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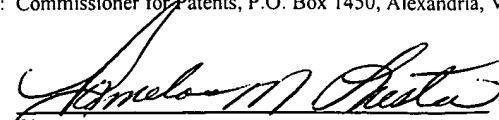
Date May 28, 2004

By


Suneel Arora
Reg. No. 42,267

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Name


(Signature)



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Prabhu Krishnamoorthy et al. Examiner: Unknown
Serial No.: 10/723445 Group Art Unit: 2682
Filed: November 26, 2003 Docket: 543.011US1
Title: SYSTEM AND METHODS FOR SEGMENTING AND DISPLAYING TUBULAR
VESSELS IN VOLUMETRIC IMAGING DATA

COMMUNICATION CONCERNING RELATED APPLICATION(S)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related application(s) in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date</u>	<u>Attorney Docket</u>	<u>Title</u>
10/155892	May 23, 2002	543.005US1	SYSTEMS AND METHODS FOR OCCLUSION CULLING IN VOLUME RENDERING
10/679250	October 3, 2003	543.009US1	SYSTEMS AND METHODS FOR EMULATING AN ANGIOGRAM USING THREE-DIMENSIONAL IMAGE DATA

Respectfully submitted,

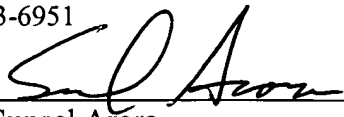
PRABHU KRISHNAMOORTHY ET AL.

By Applicants' Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6951

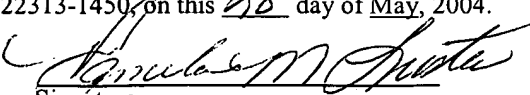
Date May 28, 2004

By


Suneel Arora
Reg. No. 42,267

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/723445
Filing Date	November 26, 2003
First Named Inventor	Krishnamoorthy, Prabhu
Group Art Unit	2682
Examiner Name	Unknown

Attorney Docket No: 543.011US1

Sheet 1 of 2

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	2002/0090121A1	07/11/2002	Schneider, Alexander C., et al.	382	128	11/23/2001
	2003/0056799A1	03/27/2003	Young, Stewart , et al.	128	922	09/05/2002
	2003/0118221A1	06/26/2003	Deschamps, Thomas, et al.	382	128	11/22/2002
	2003/016699,A1	09/04/2003	Liu, Kecheng , et al.	600	410	09/18/2001
	2,003,166999A1	09/04/2003	Liu, Kecheng , et al.	600	410	07/18/2001
	2003/0053697	03/20/2003	Aylward, Stephen R., et al.	382	203	04/09/2001
	US-4,945,478	07/31/1990	Merickel, Michael B., et al.	364	413	11/06/1987
	US-4,985,856	01/15/1991	Kaufman, Aire E., et al.	364	522	11/10/1988
	US-4,987,554	01/22/1991	Kaufman, Arie E.	364	522	08/24/1998
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	US-5,101,475	03/31/1992	Kaufman, Arie E., et al.	395	124	04/17/1989
	US-5,442,733	08/15/1995	Kaufman, Arie E., et al.	395	124	03/20/1992
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	US-5,760,781	06/02/1998	Kaufman, Arie E., et al.	345	424	09/30/1997
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	US-6,343,936	02/05/2002	Kaufman, Arie E., et al.	434	262	01/28/2000
	US-6,514,082	02/04/2003	Kaufman, Arie E., et al.	434	262	10/10/2001
	US-6,556,856	04/29/2003	Mistretta, Charles A., et al.	600	420	09/18/2000
	US-6,674,430	01/06/2004	Kaufman, Arie E., et al.	345	419	07/16/1999

EXAMINER**DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. † Applicant's unique citation designation number (optional) ‡ Applicant is to place a check mark here if English language Translation is attached

Substitute for form 1449A/PTO
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Complete if Known

Application Number	10/723445
Filing Date	November 26, 2003
First Named Inventor	Krishnamoorthy, Prabhu
Group Art Unit	2682
Examiner Name	Unknown

Sheet 2 of 2

Attorney Docket No: 543.011US1

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²
	EP-0368425	05/16/1990	Kaufman, Aire E., et al.	G06F	15/64	
	EP-1001379	05/17/2000	Knittel, James , et al.	G06T	15/40	
	EP-1089235	07/23/2002	Lauer, Hugh C., et al.	G06T	15/40	
	WO-00/33257	06/08/2000	Akerman, Shmuel , et al.	G06T	15/20	
	WO-00/41134 A1	08/27/1998	Vining, David J., et al.	G06T	17/20	
	WO-98/37517 A1	07/13/2000	Deschamps, Thomas , et al.	G06T	5/30	
	WO-99/42977 A1	08/26/1999	Shibolet, Omer	G09 B	23/28	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		COHEN, L. D., "Multiple Contour Finding and Perceptual Grouping Using Minimal Paths", <u>Journal of Mathematical Imaging and Vision</u> , 14(3), (May 2001),225-236	
		LAVIALLE, O. , et al., "Extension of the Minimal Path Searching for Structure Recovery", <u>Proceedings 1999 International Conference on Image Processing</u> , 4, (Octoctober 1999),405-409	
		SETHIAN, "Level Set Methods and Fast Marching Methods", <u>Cambridge University Press</u> , 2nd Ed., New York, (1999),	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

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